REMARKS

Entry of the foregoing amendments, and reexamination and reconsideration of the subject application, and in light of the following remarks, are respectfully requested.

Amendments

Claim 8 has been re-written as an independent claim. Claims 11 and 12 are amended commensurate with what is agreed disclosed in the application. New claim 13 reads on Fig. 3. No new matter is added, and issues for appeal are reduced.

Rejection under 35 U.S.C. §112, first paragraph

The examiner has agreed that the specification provides support "for reflectance values for visible light of 15% or less (page 3)." (Final rejection, ¶1.) According, without prejudice or disclaimer, claims 11 and 12 have been amended to include that description, that the reflectance values are "15% or less." Accordingly, this rejection may now be withdrawn.

Rejections under 35 U.S.C. §103

The Advisory action alleges that the transitional phrase "consisting essentially of" renders claim 1 indefinite with respect to whether claim 8 would be excluded thereby. There is no indefiniteness in the amendment because, as stated in the previous response, and as supported in the specification (at least at the last two paragraphs on page one; *see* MPEP 2111.03), the transitional phrase is intended to exclude intumescent materials. Nevertheless, to avoid any possible ambiguity, claim 8 has been re-written in independent form.

In the final rejection, the examiner acknowledged that Friedman *et al.* is silent on the limitations of claim 8 but maintains that the recited elements are still shown in the art. However, the art does not show, or suggest, the claimed structure, and the presence of individual elements in the art does not render obvious their combination as particularly recited in claims 1, 8, and 9. The existence of isolated elements and/or features in the prior art that are also recited in the rejected claims is not a sufficient basis for concluding that the combination of claimed elements would have been obvious, *Ex parte Hiyamizu*, 10 U.S.P.Q. 2d 1393 (B.P.A.I. 1988), absent evidence that would impel persons of ordinary skill in the art to do what is presently claimed. *Ex parte Levengood*, 28 U.S.P.Q.2d 1300 (B.P.A.I. 1993).

Terneu *et al.* shows double glazing structures with oxide coatings but is directed to thermal insulation "to reduce heat losses" from buildings (col. 1, ln. 8), not for fire protection; the word "fire" does not appear to be used in this reference. Arfsten *et al.* is directed especially to passive solar collectors (col. 2, ln. 57-62), and thus is also not directed to fire protection. So too, Benson *et al.* , directed to solar collection in a building or panel (col. 2, ln. 58-60) and Stephens, directed to reflecting solar heat from a building (col. 1, ln. 9-10), are not directed to fire protection panels. While oxide coatings may be used by these references, the function of the coating in solar IR reflection and collection panels is significantly different from IR reflection in fire protection, and that significant difference would be appreciated by one of ordinary skill in the art. The extreme energy transport encountered by fire protection panels is substantially greater than that encountered with solar radiation. Preventing articles from combusting by energy transport through glass (application at page one, second paragraph) is not a consideration in solar radiation panels, and there is no objective teaching from the references that one of ordinary skill in the fire protection art would look at solar radiation panels. The existence of a chemically similar coating is not sufficient: there is nothing to show any equivalence recognized by the art; rather, the citations are directed to one or the other. Accordingly, this group of references constitute non-analogous art with respect to the fire protection panel as claimed.

Thus, the only references in the final rejection related to fire protection are Friedman and Hentzelt. However, Hentzelt requires an intumescent material. Friedman teaches away from using an intumescent material, and applicants' claims positively exclude using an intumescent material. Hentzelt *et al.* shows at least one pair of panels and another panel separated by a gap, but between the pair of panels are intumescent layers (2 and 4 in Fig. 1; 12 and 14 in Fig. 2; etc.) sandwiching a PVB layer. The combination of Friedman and Hentzelt is thus improper, and does not suggest the claimed invention, because Friedman teaches away from using both Hentzelt's intumescent and PVB (polyvinylbuytral) materials, and also teaches away from the fluorocarbon resins claimed by applicants (*see* Friedman at col. 2, ln. 10-18). Friedman does not describe intumescent layers or PVB as alternatives that can be included, but instead specifically states they "possess significant *disadvantages* that are *inherent*" (emphases added). The combination of a the heat reflective film on one of two plates sandwiching a non-intumescent resin layer (claim 1) and as part of a double glazed structure including the same (claim 8) would not have been obvious, and so this rejection should now be withdrawn. *E.g., Bausch & Lomb, Inc. v.*

Barnes-Hind/Hydrocurve, Inc., 796 F.2d 443, 230 USPQ 416, 419-420 (Fed. Cir. 1986), *cert. den.*, 484 U.S. 823 (1987); *Dennison Manufacturing Company v. Panduit Corp.*, 475 US 809, 229 USPQ 478, 479 (1986); *In re Wesslau*, 147 USPQ 391, 393 (C.C.P.A. 1965); *In re Mercier*, 185 USPQ 774, 778 (C.C.P.A. 1975) ("all of the relevant teachings of the cited references must be considered in determining what they fairly teach to one having ordinary skill in the art.") Those teachings of the reference that lead one away from the claimed invention must be taken into account. *In re Marshall*, 198 U.S.P.Q. 344 (C.C.P.A. 1978).

Therefore, all of the rejections should be withdrawn. Only Friedman and Hentzelt are directed to fire protection glass, the other references being non-analogous. The present claims, and Friedman, specifically exclude intumescent materials such as in Hentzelt. The "consisting essentially of" language in the transitional phrase in amended claims 1, 8, and 9 excludes intumescent materials and is consistent with applicants' disclosure at paragraphs 3-4 on page one.

The rejection alleges that Hentzelt is used only for its disclosure of various coating materials, but those materials are used in the context of a panel including an intumescent material, but that layer is excluded by the present claims and by Friedman.

The rejection has not cited to any disclosure or implication in Friedman to add the types of coatings claimed by applicants. The citations to the abstract and col. 2 describe additions to the resin layer and not a separate coating layer (*e.g.*, the "blends [of polymers can be] modified with additives" in the abstract; see also col. 4, ln. 50-53). The "surface treatment" cited at col. 6, ln. 26, is not specifically exemplified (even in the background section), and the Friedman disclosure teaches away from a physical coating because the "surface corona treatment" (abstract; col. 2, ln. 40; Example 13) is clearly a surface *treatment*, not a coating.

In light of the foregoing, withdrawal of the rejections is now believed to be in order, and such actions are earnestly solicited.